



April 30, 2008

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report (March 2008)  
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of March 2008.

Sincerely,

/s/

Len S. Anthony  
General Counsel, Progress Energy Carolinas

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

March 2008

The following units had no off-line outages during the month of March:

Harris Unit 1  
Robinson Unit 2  
Roxboro Unit 4

Brunswick Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 1:41 on March 15, and remained off-line through the end of the month, a duration of 406 hours and 19 minutes.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections will be carried out during this outage.
- D. Corrective Action: Planned outage activities were in progress at the end of March.

Brunswick Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 22:56 on March 4, and was returned to service at 17:46 on March 6, a duration of 42 hours and 50 minutes.
- B. Cause: Steam Leak on Feedwater Drain Line
- C. Explanation: The unit was taken out of service due to a steam leak on the feedwater drain line.
- D. Corrective Action: Maintenance activities were performed on the unit to correct the leak in the feedwater drain line and restore normal drain control operation to the feedwater heaters. Upon completion of repairs, the unit was returned to service.

Mayo Unit 1

Full Forced Outage

- A. Duration: The unit was taken out of service at 16:39 on March 1, and returned to service at 12:46 on March 3, a duration of 44 hours and 7 minutes.
- B. Cause: Economizer Tube Leak
- C. Explanation: The unit was taken out of service to investigate and repair a tube leak in the economizer section of the boiler.
- D. Corrective Action: Maintenance activities were conducted to repair the economizer tube leak, and the unit was returned to service.

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 11:55 on March 26, and returned to service at 13:45 on March 28, a duration of 49 hours and 50 minutes.
- B. Cause: Turbine Governor Valve Repairs
- C. Explanation: The unit was taken out of service to conduct repairs on one of the governor valves for the steam turbine.
- D. Corrective Action: Repairs were completed to the governor valve, and the unit was returned to service.

Full Forced Outage

- A. Duration: The unit was taken out of service at 15:23 on March 31, and was returned to service at 15:37 on March 31, a duration of 14 minutes.
- B. Cause: Exciter Card
- C. Explanation: The unit was forced offline due to a malfunction of the exciter. Upon further investigation, it was found that a faulty exciter card led to the malfunction.
- D. Corrective Action: Maintenance activities were conducted to correct the exciter malfunction, and the unit was returned to service.

Roxboro Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 18:30 on March 7, and returned to service at 13:00 on March 8, a duration of 18 hours and 30 minutes.
- B. Cause: Generator Lock Out
- C. Explanation: The unit was forced offline due to a generator lock out which resulted from an operator error.
- D. Corrective Action: Adjustments were required in the generator to allow the unit to return to full power. The adjustments were made in a timely manner, and the unit was returned to service.

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:18 on March 12, and returned to service at 6:15 on March 15, a duration of 78 hours and 57 minutes.
- B. Cause: Planned Inspection & Maintenance of Flue Gas Desulfurization System
- C. Explanation: The unit was taken offline to conduct a planned inspection of the flue gas desulfurization (FGD) system. In addition to the planned inspection, preventative maintenance activities were also completed on the FGD system.
- D. Corrective Action: Upon completion of the inspection and maintenance activities on the flue gas desulfurization system, the unit was returned to service.

Roxboro Unit 3

Full Forced Outage

- A. Duration: The unit was taken out of service at 00:58 on March 19, and was returned to service at 13:41 on March 21, a duration of 60 hours and 43 minutes.
- B. Cause: Steam Leak on Extraction Steam System
- C. Explanation: The unit was taken offline to investigate and repair a steam leak on the extraction steam system.
- D. Corrective Action: Maintenance activities, including replacement of the steam line expansion joint, were performed to repair the steam leak in the extraction system. Upon completion of repairs, the unit was returned to service.

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	286,778 MWH		7,440,119 MWH		2
Capacity Factor	41.15 %		90.30 %		
Equivalent Availability	44.62 %		88.88 %		
Output Factor	90.81 %		100.30 %		
Heat Rate	10,687 BTU/KWH		10,398 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	381,125	54.69	707,284	8.58	3
Partial Scheduled	4,817	0.69	54,951	0.67	4
Full Forced	0	0.00	114,389	1.39	5
Partial Forced	24,214	3.47	66,983	0.81	6
Economic Dispatch	0	0.00	31	0.00	7
Possible MWH	696,934		8,239,392		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	937 MW		937 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	638,070 MWH		7,775,803 MWH		2
Capacity Factor	91.65 %		94.47 %		
Equivalent Availability	90.38 %		93.56 %		
Output Factor	97.26 %		99.68 %		
Heat Rate	10,660 BTU/KWH		10,549 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	389,433	4.73	3
Partial Scheduled	0	0.00	74,032	0.90	4
Full Forced	40,135	5.76	40,135	0.49	5
Partial Forced	26,841	3.86	28,258	0.34	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	696,191		8,230,608		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency



	Month of March 2008		Twelve Month Summary		See Notes*
MDC	900 MW		900 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	684,058 MWH		7,420,401 MWH		2
Capacity Factor	102.30 %		93.86 %		
Equivalent Availability	99.84 %		92.95 %		
Output Factor	102.30 %		100.54 %		
Heat Rate	10,748 BTU/KWH		10,849 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	523,410	6.62	3
Partial Scheduled	1,093	0.16	8,585	0.11	4
Full Forced	0	0.00	1,320	0.02	5
Partial Forced	0	0.00	66,157	0.84	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	668,700		7,905,600		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	710 MW		710 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	552,687 MWH		5,765,595 MWH		2
Capacity Factor	104.77 %		92.45 %		
Equivalent Availability	98.13 %		88.53 %		
Output Factor	104.77 %		103.45 %		
Heat Rate	10,542 BTU/KWH		10,787 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	628,586	10.08	3
Partial Scheduled	9,851	1.87	26,636	0.43	4
Full Forced	0	0.00	34,707	0.56	5
Partial Forced	0	0.00	24,164	0.39	6
Economic Dispatch	0	0.00	5,391	0.09	7
Possible MWH	527,530		6,236,640		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	742 MW		741 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	268,140 MWH		4,851,478 MWH		2
Capacity Factor	48.64 %		74.44 %		
Equivalent Availability	77.75 %		96.24 %		
Output Factor	61.13 %		75.74 %		
Heat Rate	10,921 BTU/KWH		10,382 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	36,976	6.71	36,976	0.57	3
Partial Scheduled	43,670	7.92	126,717	1.95	4
Full Forced	32,908	5.97	32,908	0.51	5
Partial Forced	9,127	1.66	48,364	0.74	6
Economic Dispatch	160,485	29.11	1,414,685	21.73	7
Possible MWH	551,306		6,511,140		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	671 MW		647 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	383,743 MWH		4,651,629 MWH		2
Capacity Factor	76.97 %		81.85 %		
Equivalent Availability	84.80 %		86.90 %		
Output Factor	88.59 %		92.67 %		
Heat Rate	9,177 BTU/KWH		9,120 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	52,975	10.63	583,952	10.27	3
Partial Scheduled	10,382	2.08	63,336	1.11	4
Full Forced	12,414	2.49	75,071	1.32	5
Partial Forced	0	0.00	16,893	0.30	6
Economic Dispatch	39,039	7.83	304,461	5.36	7
Possible MWH	498,553		5,683,248		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	705 MW		705 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	332,720 MWH		4,441,800 MWH		2
Capacity Factor	63.52 %		71.73 %		
Equivalent Availability	80.43 %		92.07 %		
Output Factor	69.17 %		75.13 %		
Heat Rate	11,294 BTU/KWH		11,166 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	42,805	8.17	152,327	2.46	3
Partial Scheduled	17,067	3.26	112,868	1.82	4
Full Forced	0	0.00	102,613	1.66	5
Partial Forced	42,651	8.14	123,207	1.99	6
Economic Dispatch	88,571	16.91	1,259,904	20.34	7
Possible MWH	523,815		6,192,720		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of March 2008		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	743 HOURS		8,784 HOURS		
Net Generation	391,655 MWH		3,854,662 MWH		2
Capacity Factor	75.52 %		62.87 %		
Equivalent Availability	97.78 %		83.69 %		
Output Factor	75.52 %		72.19 %		
Heat Rate	10,361 BTU/KWH		10,577 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	765,705	12.49	3
Partial Scheduled	11,523	2.22	148,255	2.42	4
Full Forced	0	0.00	21,813	0.36	5
Partial Forced	0	0.00	63,963	1.04	6
Economic Dispatch	115,436	22.26	1,274,563	20.79	7
Possible MWH	518,614		6,131,232		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2007 - December 2007	March 2008	January 2008 - March 2008
Asheville	1	191	63.64	80.67	82.96
Asheville	2	185	73.17	81.19	79.47
Cape Fear	5	144	78.67	64.33	75.07
Cape Fear	6	172	72.38	19.25	52.74
Lee	1	74	62.15	76.61	73.32
Lee	2	77	62.47	59.78	57.74
Lee	3	248	66.38	2.67	1.08
Mayo	1	742	72.10	48.64	64.75
Robinson	1	176	74.63	74.51	80.62
Roxboro	1	369	78.01	88.63	84.69
Roxboro	2	671	80.06	76.97	86.62
Roxboro	3	705	74.37	63.52	69.77
Roxboro	4	698	62.40	75.52	70.31
Sutton	1	93	56.26	59.26	55.20
Sutton	2	102	63.19	80.32	70.94
Sutton	3	403	55.53	44.46	64.26
Weatherspoon	1	48	53.86	59.82	52.02
Weatherspoon	2	49	55.68	62.74	54.46
Weatherspoon	3	76	68.70	78.69	77.64
Fossil System Total		5,223	69.82	62.90	68.88
Brunswick	1	938	95.92	41.15	80.58
Brunswick	2	937	86.99	91.65	98.08
Harris	1	900	93.90	102.30	102.84
Robinson Nuclear	2	710	92.26	104.77	106.15
Nuclear System Total		3,485	92.25	83.48	96.24
Total System		8,708	78.79	71.14	79.83

Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2007 through March 31, 2008, actual period to date performance is summarized below:

Period to Date: April 1, 2007 to March 31, 2008

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period                      A = 28,401,918 MWH

B. Total number of hours during SCPSC test period                                      B =            8,784 hours

C. Nuclear system MDC during SCPSC test period (see page 2)                      C =            3,485 MW

D. Reasonable nuclear system reductions (see page 2)                                  D =    2,719,645 MWH

A. SC Fuel Case nuclear system capacity factor:  $[(A + D) / (B + C)] * 100 = 101.7\%$

NOTE:

If Line Item E  $> 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.



Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2007 to March 31, 2008

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	381,125	392,521	480,210	628,587	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	492,066	73,319	75,776	34,707	
Reasonable coast down power reductions (MWH)	4,816	0	0	6,195	
Reasonable power ascension power reductions (MWH)	31,774	46,147	0	22,063	
Prudent NRC required testing outages (MWH)	6,273	18,469	1,549	9,852	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	14,196	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	916,054	530,456	557,535	715,600	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,719,645